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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,289	11/19/2001	Michael F. Korus	CM05016H	7037
22917	7590	04/08/2005	EXAMINER	
MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196			NGUYEN, PHUONGCHAU BA	
			ART UNIT	PAPER NUMBER
			2665	

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No. ☒

09/992,289

Applicant(s)

KORUS ET AL.

Examiner

Phuongchau Ba Nguyen

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-12 is/are rejected.
- 7) ☒ Claim(s) 7 and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11-19-1</u> . | 6) <input type="checkbox"/> Other: _____  |

***Information Disclosure Statement***

1. The information disclosure statement filed 11-19-1 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

***Specification***

2. The disclosure is objected to because of the following informalities: page 1, line 10, the *blank space* after the "Serial No" should be filled with an actual U.S. Patent application serial number.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-6, 9-10 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Le (US 2003/0093553).

**Regarding claim 1,**

Le discloses Method, System and System Entities for Providing Location Privacy in Communication Networks. Le discloses a method comprising:

(1) *receiving a privacy policy request from a mobile network node* (the Location Privacy Server-LPS-Fig.4 receives a privacy location request from a mobile node-MN-Fig.4, see page 4, 0064 and 0080-0085);

(2) *interpreting the request to define one or more privacy attributes associated with the mobile network node* (the Location Privacy Server-LPS -Fig.4 processes the request wherein the request is an anycast address (attribute) which enables a packet delivered to any one of several possible nodes, see page 4, 0064); and

(3) *in an instance that a binding update is to be sent on behalf of the mobile network node, determining, based on the one or more privacy attributes, a selected number of correspondent nodes to receive the binding update* (when MN-Fig.4 moves to different locations it sends a binding update to the Location Privacy Server-LPS. The Location Privacy Server-LPS based on the anycast address for sending the binding update to a several nodes that are identified by that address, see page 4, 0064 to page 5, 0070); and

(4) *sending the binding update to the selected number of correspondent nodes* (the Location Privacy Server-LPS sends the binding update to a several nodes that are identified by that address see page 4, 0064 to page 5, 0070).

**Regarding claim 2,**

Le further discloses that the Location Privacy Server-LPS-Figs.2 & 4 (*a mobile router*) sends Location Privacy Response to the mobile node-MN-Figs.2 & 4, see page 4, 0066 (*operably attached to the mobile network node*).

**Regarding claim 3,**

Le further discloses the Location Privacy Server-LPS based on the anycast address for sending the binding update to a several nodes that are identified by that address. These identified nodes are considered as active nodes, see page 4, 0064 to page 5, 0070 (*corresponding to wherein the privacy attributes allow sending the binding update to all active correspondent nodes communicating with the mobile network node*).

**Regarding claim 4,**

Le further discloses the Location Privacy Server-LPS based on the anycast address for sending the binding update to a several nodes that are identified by that address and therefore nodes that are not in the anycast address belongs to the attribute of "*disallow sending the binding update to any corresponding nodes*", see page 4, 0064

to page 5, 0070 (*wherein the privacy attributes disallow sending the binding update to any correspondent nodes*).

**Regarding claim 5,**

In Le, the Location Privacy Server-LPS allows sending the binding update only to identified nodes thus satisfying the criteria defined in anycast address. The identified nodes in the anycast address defines an “*inclusive list*”, see page 4, 0064 to page 5, 0070 (corresponding to *wherein the privacy attributes allow sending the binding update only to correspondent nodes satisfying a selection criteria, thereby defining an inclusive list*).

**Regarding claim 6,**

In Le, the Location Privacy Server-LPS based on the anycast address for sending the binding update to a several nodes that are identified by that address and the selection criteria depends on several nodes in anycast address. Since those identified nodes belong to an IPv6 mobile network, they define a range of IP addresses, see page 4, 0064 to page 5, 0070; and see page 1, 0003 (corresponding to *wherein the selection criteria is based on one of a range of IP addresses and autonomous system membership*).

**Regarding claim 9,**

In Le, the Location Privacy Server-LPS based on the anycast address for sending the binding update to a several nodes that are identified by that address and These identified nodes in anycast address being a special case which covers both unicast and multicast, see page 4, 0064 to page 5, 0070; see also page 6, 0083 (corresponding to *wherein the step of sending the binding update comprises sending one of a multicast and unicast binding update message to the number of correspondent nodes*).

**Regarding claim 10,**

Le discloses Method, System and System Entities for Providing Location Privacy in Communication Network. In Le, Nw\_Sys, fig.3a (*communication system*) comprising Nw\_1, fig.3 (*a mobile network*) including Mn\_Pa, fig.3 (*one or more mobile network hosts*) attached to LPS\_1, fig.3 (*a mobile router*),

(1) *obtaining a multicast care of address associated with the mobile network, the multicast care of address being used as a proxy address for the mobile network hosts responsive to mobility of the mobile network from a home network to a foreign network* (the Location Privacy Server-LPS obtains a multicast care of address from the Location Privacy Agent-LPA . The multicast care of address is a proxy address for the corresponding nodes-CN's responsive to mobility of the mobile network-Nw\_1, fig.3 from

a home network-domain 1, fig.3 to a foreign network-domain 2,fig.3, see page 4, 0064-  
page 5, 0070; and also see page 6, 0084-0085 & 0105-0107);

(2) *determining privacy attributes associated with the mobile network hosts* (the Location Privacy Server-LPS -Fig.4 processes the request wherein the request is an anycast address (attribute) which enables a packet delivered to any one of several possible nodes, see page 4, 0064); and

(3) *communicating a binding update message including the multicast care of address to selected correspondent nodes consistent with the privacy attributes of the mobile network hosts* (the Location Privacy Server-LPS sending a notify to the Location Privacy Agent-LPA so that **The Location Privacy Agent-LPA** communicates a binding update message to corresponding nodes-CN-fig.4. This binding update message includes identified nodes in the anycast address, see page 6, 0082-0090).

**Regarding claim 12,**

Le discloses Method, System and System Entities for Providing Location Privacy in Communication Networks. Le discloses a mobile router (LPS, fig.5) comprising:

(1) *a mobile network interface* (a connection interface for connecting between LPS to/from MN & network, fig.5) *operably connecting the mobile router (LPS) to one or more mobile network hosts (CNs) defining a mobile network;*



(2) *a multicast care of address binding management element (a processing means including a detecting means, a writing means, and retrieval/comparing/determination means, fig.5, see 0097-0107) for obtaining, responsive to movement of the mobile network from a home network to a foreign network, a multicast care of address adapted for use as a proxy address of the mobile network hosts (the Location Privacy Server-LPS obtains a multicast care of address from the Location Privacy Agent-LPA . The multicast care of address is a proxy address for the corresponding nodes-CN's responsive to mobility of the mobile network-Nw\_1, fig.3 from a home network-domain 1, fig.3 to a foreign network-domain 2,fig.3, see page 4, 0064-page 5, 0070; and see page 6, 0084-0085 & 0105-0107; see also page 7, 0097-0104);*

(3) *a privacy attribute database (database means, fig.5) identifying requested privacy attributes of the mobile network hosts relative to maintaining privacy of the multicast care of address (the Location Privacy Server-LPS -Fig.5 includes the database means to process the request, wherein the request is an any cast address (attribute) which enables a packet delivered to any one of several possible nodes which are identified by that address, see page 4, 0064; see also page 7, 0097-0105); and*

(4) *a routing element (transmission means, fig.5) operable to send binding update messages including the multicast care of address to a selected number of correspondent nodes consistent with the requested privacy attributes of the mobile network hosts (the Location Privacy Server-LPS sending a notify to the Location Privacy Agent-LPA that has been selected based on the location privacy request from MN for*

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communicating a binding update message to corresponding nodes-CN-fig.4 because the corresponding nodes are identified in the anycast address. This binding update message includes identified nodes in the anycast address, which satisfies the location privacy request of the MN, see page 6, 0082-0090; see also page 7, 0097-0104).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Le (US 2003/0093553).

**Regarding claim 11,**

The embodiment of figure 4 in Le discloses all the claimed limitations except (1) *receiving, via IP tunneling from a home agent, one or more IP packets to a targeted mobile network node from a correspondent node not having received the binding update message; (2) sending the packets to the targeted mobile network node.*

In the embodiment of figure 1, when the mobile node-MN decides not sending any binding update to the corresponding node-CN, then the packets destined to the MN from CN will be IP tunneling through the Home Agent according to conventional method, see 0013-0022 (corresponding to (1)); the access point-AP-fig.1 functions as a router, a home agent sending packets to the MN from the CN, see 0009 & 0017 (corresponding to (2)).

The teaching in figure 1 of Le and the teaching in figure 4 of Le are analogous art because they are from a similar problem solving area, location privacy in mobile IPv6.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the mechanism of having IP tunneling from a home agent as taught by the embodiment of figure 1 with the embodiment of figure 4.

The suggestion/motivation for doing so would have been to provide a conventional method for a mobile at a foreign site receiving packets through IP tunneling from home agent and exchanging of packets between the mobile node and the corresponding node without revealing the location of the mobile node in the mobile IP based network.

Therefore, it would have been obvious to combine the teaching in figure 1 in Le with the teaching of figure 4 in Le to obtain the invention as specified in claim 11.

***Allowable Subject Matter***

8. Claims 7-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchau Ba Nguyen whose telephone number is 571-272-3148. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 2:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to be 'PN' or a stylized version of the name.

Phuongchau Ba Nguyen  
Examiner  
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